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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/510,935

04/01/2005

Robert Massen

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7590

08/08/2007

LAW OFFICES OF STUART J. FRIEDMAN

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EXAMINER

NGUYEN, SANG H

ART UNIT

PAPER NUMBER

2886

MAIL DATE

DELIVERY MODE

08/08/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/510,935

Applicant(s)

MASSEN, ROBERT

Examiner

Sang Nguyen

Art Unit

2886

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 15 and 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-13 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 12/17/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Election/Restrictions***

Applicant's election without traverse of Group I (claims 1-13) in the reply filed on 07/24/07 is acknowledged.

***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Information Disclosure Statement***

The information disclosure statement filed 12/17/04 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

With foreign patent document filed on 12/17/04 (EP 0760622 B; EP 0507709A1, and WO 02074038) has not been considered by the examiner.

***Response to Pre-Amendment***

Applicant's response to Pre-Amendment on 10/08/04 has been entered. It is noted that the application contains claims 1-13 and 15-16 and claim 14 has been canceled the pre-amendment on 10/08/04.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

**Claims 1-13 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

The claims are directed to a judicial exception; as such, pursuant to the Interim Guidelines on Patent Eligible Subject Matter (MPEP 2106)), the claims must have either physical transformation and/or a useful, concrete and tangible result. The claims fail to include transformation from one physical state to another. Although, the claims appear useful and concrete, there does not appear to be a tangible result claimed. The practical application of the claimed invention cannot be realized until the information is conveyed to the user. For the results to be tangible, it would need to output to a user, be displayed to a user, stored for later use, or used in any tangible manner. Merely <using photogrammetrical methods for determining, calculating, detecting/measuring, or characterizing classifying > would not appear to be sufficient to constitute a tangible result, since the outcome of the < using photogrammetrical methods for determining, calculating, detecting/measuring, or characterizing classifying > step has not been used in a disclosed practical application nor made available in such a manner that its usefulness in a disclosed practical application can be realized. As such, the subject matter of the claims is not patent eligible.

Part b. *Practical Application the Produces a Useful, Concrete, and Tangible Result* under Section IV *Determine Whether the Claimed Invention Complies with the Subject Matter Eligibility Requirement of 35 U.S.C. Sec. 101*, sentence 3, in the OG Notice from 22 November 2005 states, "In determining whether the claim is for a

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"practical application," the focus is not on whether the steps taken to achieve a particular result are useful, tangible, and concrete, but rather that the final result achieved by the claimed invention is "useful, tangible, and concrete."

See OG Notices: 22 November 2005, "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility". MPEP 2106.

Web site <http://www.uspto.gov/web/offices/com/sol/og/2005/week47/patgupa.htm>

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claims 1, 7-8, and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jokinen (U.S. Patent No. 5,706,090) in view of Riegl et al (U.S. Patent No. 6,852,975).**

**Regarding claim 1;** Jokinen discloses a method of optically detecting the three-dimensional shape of an interior space defined by an inner wall, comprising the steps of:

providing said interior space (3c of figure 4) with an elastic envelope (e.g., coating lining material [3d, 3e of figure 4]) in snug contact with the inner wall (3b of figure 4) and marked with marks (P1, P2 of figures 2-3) facing the inside of the interior space (3c of figure 4) and adapted to be evaluated photogrammetrically by a measuring device (2 of figure 1);

U.S. Patent Jan. 6, 1998 Sheet 3 of 5 5,706,090

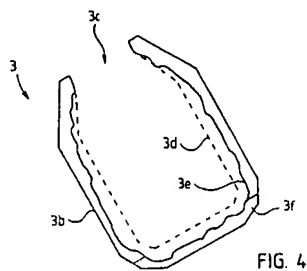


FIG. 4

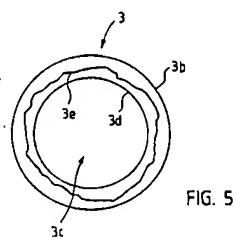


FIG. 5

U.S. Patent Jan. 6, 1998 Sheet 1 of 5 5,706,090

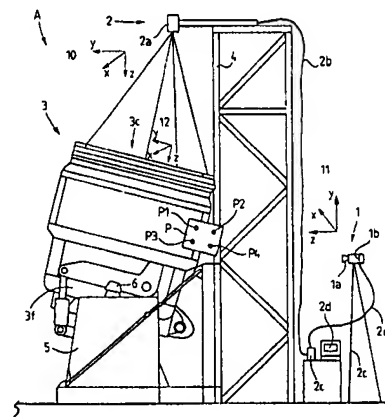
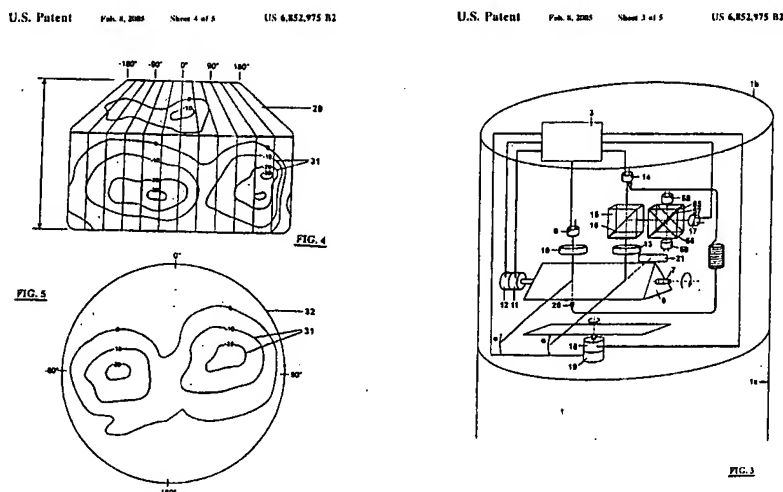


FIG. 1

Jokinen discloses all of features of claimed invention except for producing a number of overlapping image recordings of said interior space marked in this way with the aid of one or more imaging devices; and using photogrammetrical methods for

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determining from said recordings the three-dimensional shape of that part of said interior space that was detected by said overlapping recordings. However, Riegl et al teaches that it is known in the art to provide producing a number of overlapping image recordings of said interior space (23 of figure 2) marked with the aid of one or more imaging devices (17, 58, 59 of figure 3); and using photogrammetrical methods for determining from said recordings the three-dimensional shape of that part of said interior space that was detected by said overlapping recordings (31 of figure 4-5). See figures 1-6.



Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine method of Jokinen with producing a number of overlapping image recordings of said interior space marked in this way with the aid of one or more imaging devices; and using photogrammetrical methods for determining from said recordings the three-dimensional shape of that part of said interior space that was detected by said overlapping recordings as taught by Riegl et al

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for the purpose of reducing with background brightness avoid overdrive from the background noise.

**Regarding claim 7;** Jokinen discloses all of features of claimed invention except for the interior space is the interior of an orifice of the body. It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine method of Jokinen with the interior space is the interior of an orifice of the body, since it has been held that broadly providing a mechanical or automatic means to replace manual activity which has accomplished the same result involves only routine skill in the art. In re Venner, 120 USPQ 192

**Regarding claims 8, and 10;** Jokinen discloses all of features of claimed invention except for a video camera is used as imaging device and that the overlapping image recordings of the interior space are recorded in the form of one or more video sequences. However, Riegl et al teaches that it is known in the art to provide a video camera (17, 58, 59 of figure 3) is used as imaging device and that the overlapping image recordings of the interior space are recorded in the form of one or more video sequences (figures 4-5). It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine method of Jokinen with a video camera is used as imaging device and that the overlapping image recordings of the interior space are recorded in the form of one or more video sequences as taught by Riegl et al for the purpose of reducing with background brightness avoid overdrive from the background noise.



**Regarding claim 11;** Jokinen discloses all of features of claimed invention except for the interior space is mapped on the imaging device in radial bands via a collar-shaped mirror. However, Riegl et al teaches that it is known in the art to provide the interior space is mapped on the imaging device in radial bands via a collar-shaped mirror (figures 4-5). It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine method of Jokinen with the interior space is mapped on the imaging device in radial bands via a collar-shaped mirror as taught by Riegl et al for the purpose of reducing with background brightness avoid overdrive from the background noise.

**Claims 2, 4-6, 9, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jokinen and Riegl et al as applied to claim 1 above, and further in view of Pelrine (U.S. Patent No. 5,392,715).**

**Regarding claim 2;** Jokinen and Riegl et al discloses all of features of claimed invention except for the side of the marked envelope facing the inner wall is provided with a means adhering to said inner wall prior to insertion into the interior space. However, Pelrine teaches that it is known in the art to provide the side of the marked envelope facing the inner wall is provided with a means adhering to said inner wall prior to insertion into the interior space (col.1 lines 15-27 and col.2 lines 42-68 and figures 5a-5c). It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine method of Jokinen with the side of the marked envelope facing the inner wall is provided with a means adhering to said inner wall prior

to insertion into the interior space as taught by Pelrine for the purpose of repairing inner walls of pipeline more accurately.

**Regarding claims 4-6;** Jokinen and Riegl et al discloses all of features of claimed invention except for the interior space is the interior of footwear or the interior space is the interior of a prosthesis funnel for receiving a limb stump or the interior space constitutes the interior of a product which is in contact with the human body during use. It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine method of Jokinen with the interior space is the interior of footwear or the interior space is the interior of a prosthesis funnel for receiving a limb stump or the interior space constitutes the interior of a product which is in contact with the human body during use, since it has been held that broadly providing a mechanical or automatic means to replace manual activity which has accomplished the same result involves only routine skill in the art. In re Venner, 120 USPQ 192.

**Regarding claim 9;** Jokinen and Riegl et al discloses all of features of claimed invention except for the imaging device(s) is/are rotated axially and successively record(s) both axially and radially overlapping recordings of the marked interior space. However, Pelrine teaches that it is known in the art to provide the imaging device( 64 of figure 1)) is/are rotated axially and successively record(s) both axially and radially overlapping recordings of the marked interior space (9 of figure 1 and col.5 lines 55-66). It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine method of Jokinen with the imaging device(s) is/are rotated axially and successively record(s) both axially and radially overlapping

recordings of the marked interior space as taught by Prlrine for the purpose of repairing inner walls of pipeline more accuracy.

**Regarding claim 12;** Jokinen and Riegl et al discloses all of features of claimed invention except for the imaging device(s) is/are guided in the interior space by spacers. However, Pelrine teaches that it is known in the art to provide the imaging device( 64 of figure 1) is/are guided in the interior space by spacers (9, 10 of figure 1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine method of Jokinen with the imaging device(s) is/are guided in the interior space by spacers as taught by Prlrine for the purpose of repairing inner walls of pipeline more accuracy.

**Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jokinen and Riegl et al as applied to claim 1 above, and further in view of Ikeda et al (U.S. Patent No. 5,911,694).**

**Regarding claim 13;** Jokinen and Riegl et al discloses all of features of claimed invention except for the overlapping image fields are transmitted from the interior space to one or more imaging device(s) located outside the interior space via an endoscopic system. However, Ikeda et al teaches that it is known in the art to provide the overlapping image fields are transmitted from the interior space to one or more imaging device (76, 77, 79 of figure 10) located outside the interior space via an endoscopic system (figure 10). It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine method of Jokinen with the imaging

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device(s) is/are guided in the interior space by spacers as taught by Ikeda et al for the purpose of detecting organic tissue more accuracy.

U.S. Patent Jun. 15, 1999 Sheet 4 of 29 5,911,694

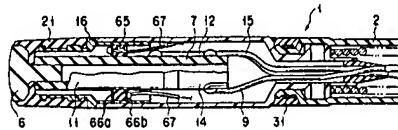


FIG. 9

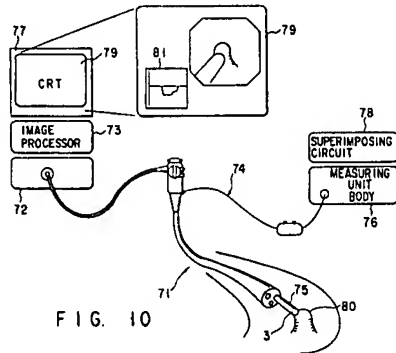


FIG. 10

### ***Allowable Subject Matter***

Claims 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record, taken alone or in combination, fails discloses or render obvious method of optically detecting three dimensional shape of an interior space comprising all the specific elements with the specific combination including of an inflatable cover is inserted into the marked envelope, said envelope is placed into the

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interior space with said cover and there said envelope is pressed against the inner wall of the interior space to be detected by admitting internal pressure into said cover such that it is in snug contact with said inner wall, and in that afterwards said cover is relieved from pressure and removed, in order to make room for the insertion of one or more imaging devices in set forth limitation of claim 3.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kirchhoff et al (6922251); Neigeisel et al (5125745); Scholdstrom et al (4508448).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sang Nguyen whose telephone number is (571) 272-2425. The examiner can normally be reached on 9:30 am to 7:00 pm.

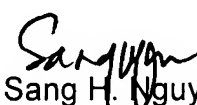
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tarifu Chowdhury can be reached on (571) 272-2800 ext. 86. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

August 2, 2007

  
Sang H. Nguyen  
Primary Patent Examiner  
Art Unit 2886